

Bury

As a minimum, controls for the bury of pipelines follow:

1. The grade of top of pipe or casing within highway rights-of-way should provide minimum bury as follows:
 - a. Longitudinal installations. 3'
 - b. Crossings under roadways. 3'
(below travel surface)
 - c. Crossings under ditches (paved and unpaved) . . . 2'
2. Where less than minimum bury is necessary because of other utilities, highway drainage, water table, ordinances, or similar reasons, the pipe should be rerouted or else protected with a casing or concrete slab, or use should be made of other suitable measures acceptable to the Manager of Right-of-Way, Division Engineer, or State Design Services Engineer.
3. Bury for pipelines carrying materials which are flammable, corrosive, expansive, energized, or unstable, particularly if carried at high pressure potential, must comply with state, federal and utility codes, but in no case shall the depth of bury be less than as shown in No. 1 above.

Encasements - General

Generally, encasement of carrier pipes will not be required where open-cut construction is permitted or where the installation method under existing roads, where open-cut is not permitted, is such that the bored hole is never left unsupported. However, materials, joints, protective coating, grouting, wall thickness of carrier pipe, welds, and cathodic protection shall be in accordance with applicable industry or governmental codes.

Encasements - Freeways

1. Pipelines installed prior to or during construction of a freeway project may be installed without encasement provided the open-cut construction method consistent with Department standards is authorized. Any uncased pipeline crossing under a freeway shall, as a minimum, be constructed of ductile iron or equal quality materials with satisfactory leak-proof joints.
2. All pipelines crossing under existing freeways shall be encased unless the utility demonstrates to the satisfaction of the Manager of Right-of-Way or State Design Services Engineer that the installation method for an uncased crossing is such that the bored hole is never left unsupported.